OIPE IAP41
JUN 14 2006
PATENT & TRADEMARK OFFICE

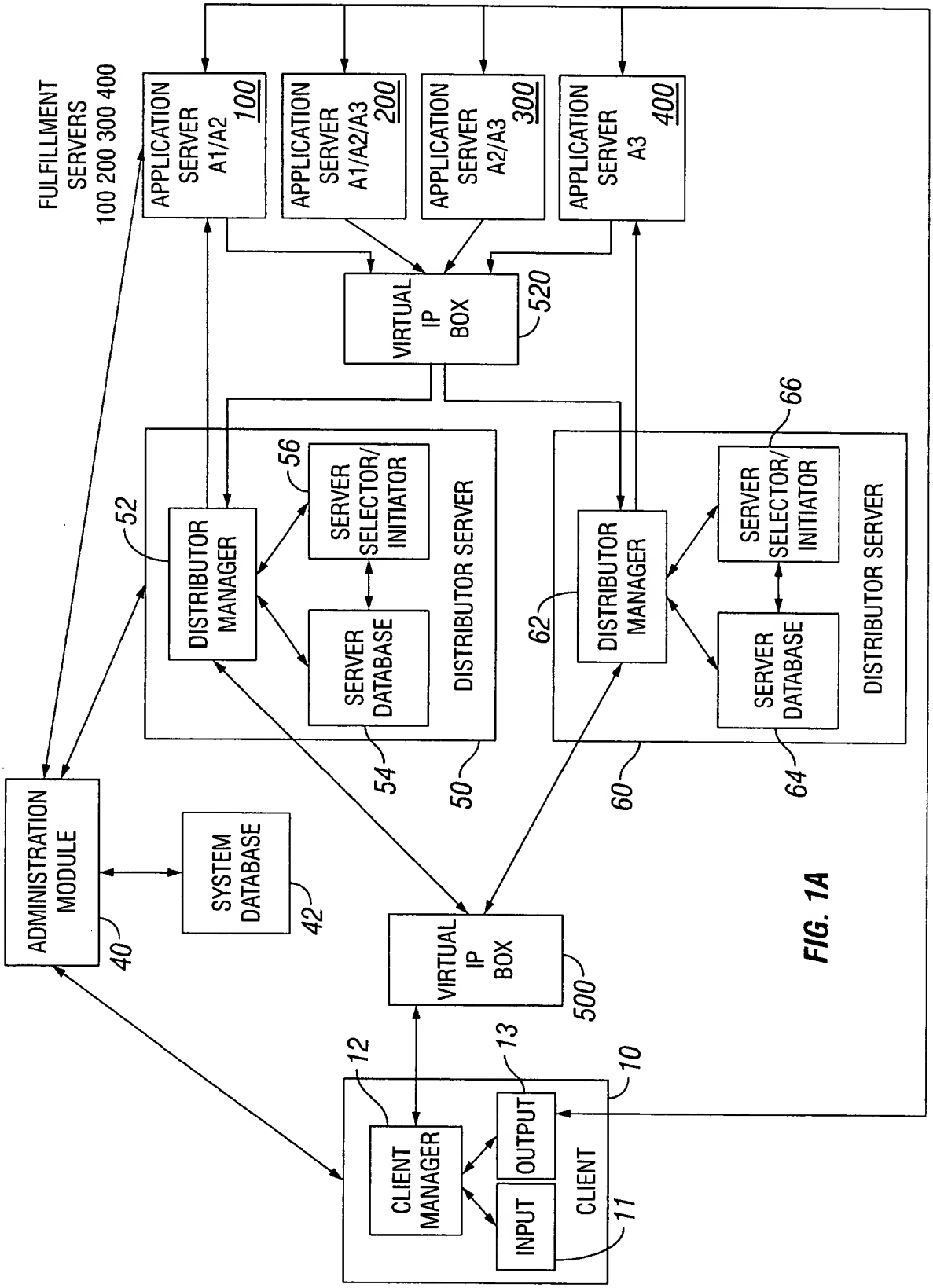

FIG. 1A

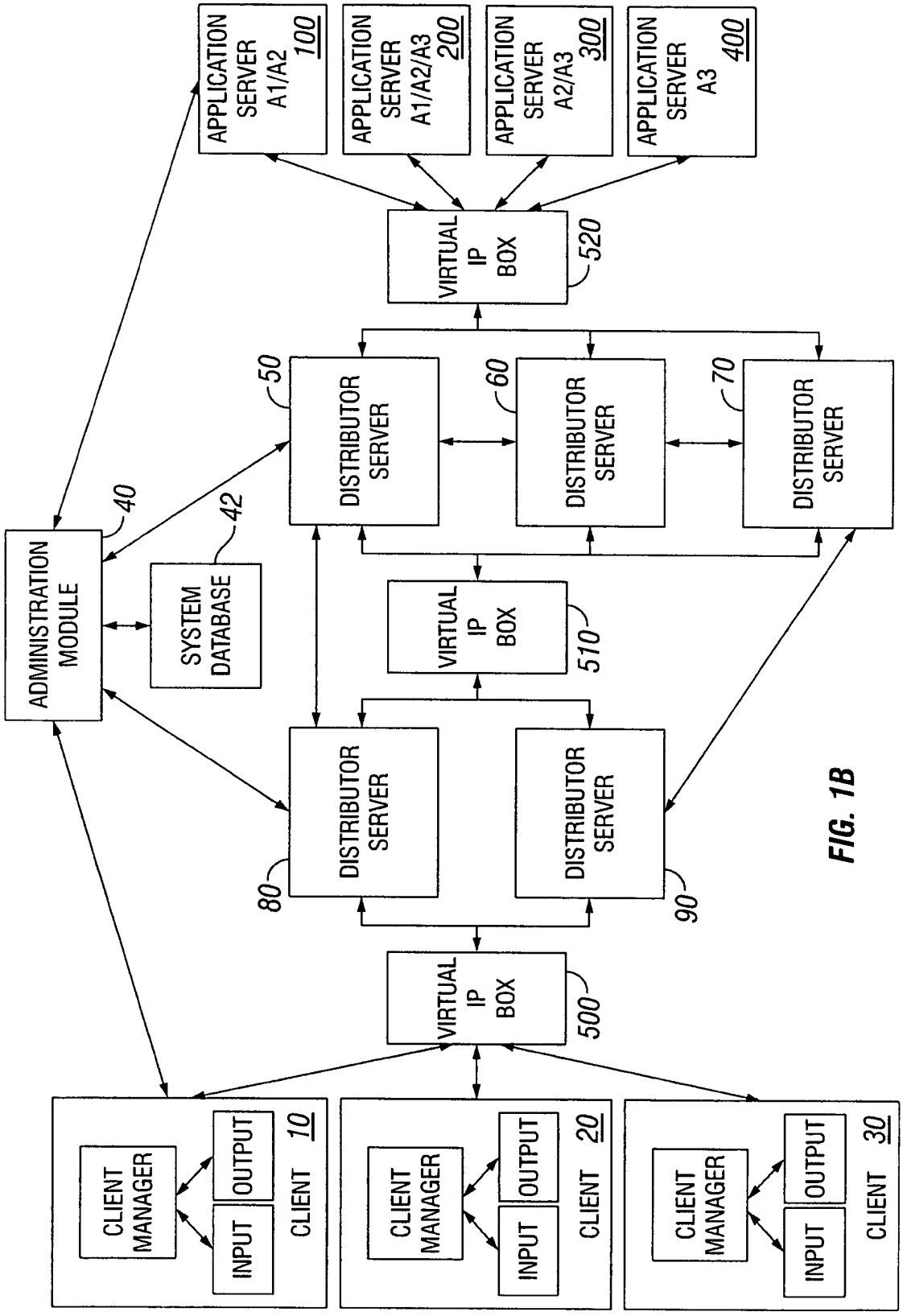
APPLICATION SERVER A1/A2 100
APPLICATION SERVER A1/A2/A3 200
APPLICATION SERVER A2/A3 300
APPLICATION SERVER A3 400
VIRTUAL IP BOX 520
VIRTUAL IP BOX 510
VIRTUAL IP BOX 500
DISTRIBUTOR SERVER 50
DISTRIBUTOR SERVER 60
DISTRIBUTOR SERVER 70
DISTRIBUTOR SERVER 80
DISTRIBUTOR SERVER 90
ADMINISTRATION MODULE 40
SYSTEM DATABASE 42
CLIENT MANAGER
INPUT
OUTPUT
CLIENT 10
CLIENT 20
CLIENT 30

FIG. 1B

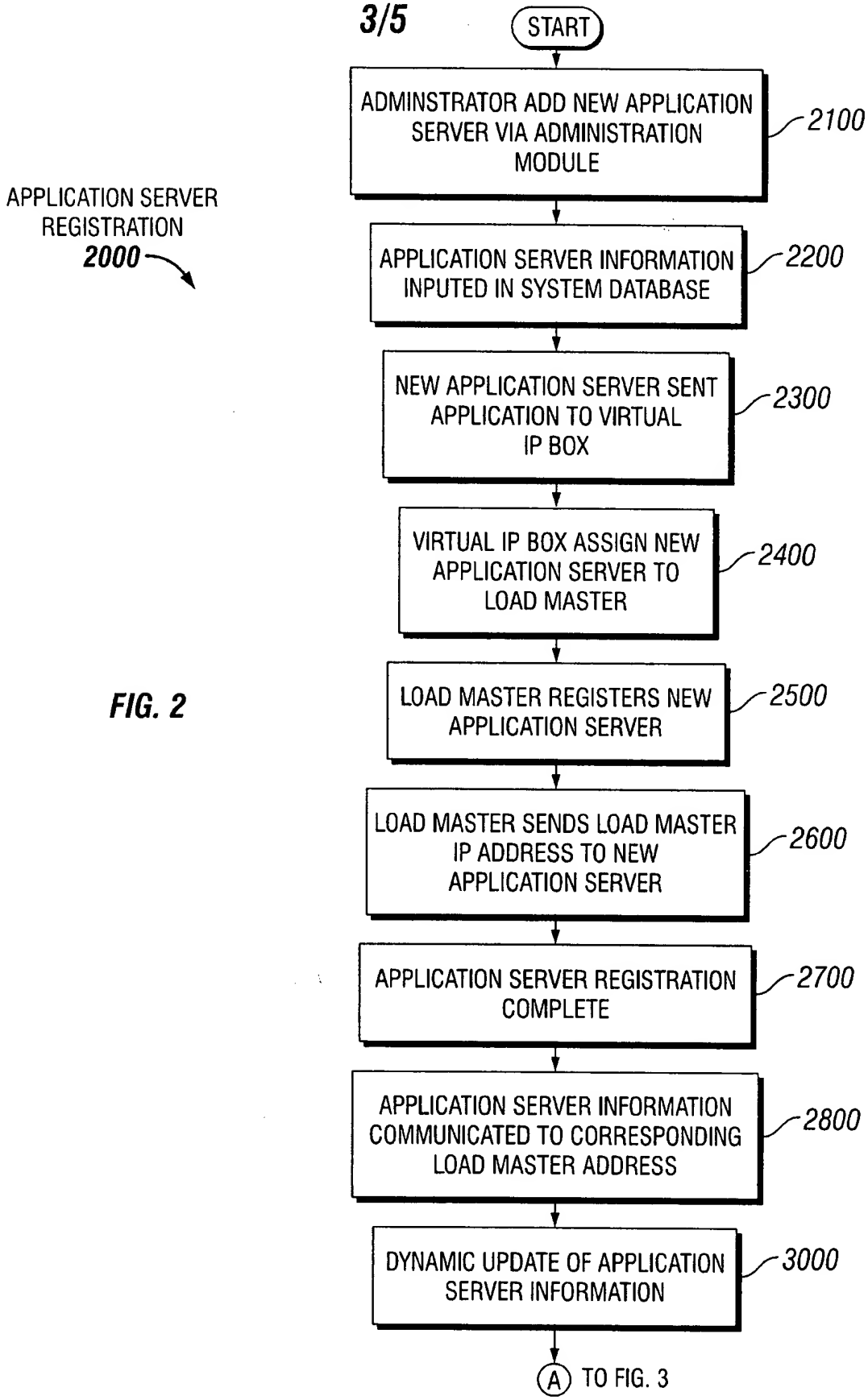
APPLICATION SERVER REGISTRATION
2000
START
ADMINSTRATOR ADD NEW APPLICATION SERVER VIA ADMINISTRATION MODULE
2100
APPLICATION SERVER INFORMATION INPUTED IN SYSTEM DATABASE
2200
NEW APPLICATION SERVER SENT APPLICATION TO VIRTUAL IP BOX
2300
VIRTUAL IP BOX ASSIGN NEW APPLICATION SERVER TO LOAD MASTER
2400
LOAD MASTER REGISTERS NEW APPLICATION SERVER
2500
LOAD MASTER SENDS LOAD MASTER IP ADDRESS TO NEW APPLICATION SERVER
2600
APPLICATION SERVER REGISTRATION COMPLETE
2700
APPLICATION SERVER INFORMATION COMMUNICATED TO CORRESPONDING LOAD MASTER ADDRESS
2800
DYNAMIC UPDATE OF APPLICATION SERVER INFORMATION
3000
A
TO FIG. 3

FIG. 2

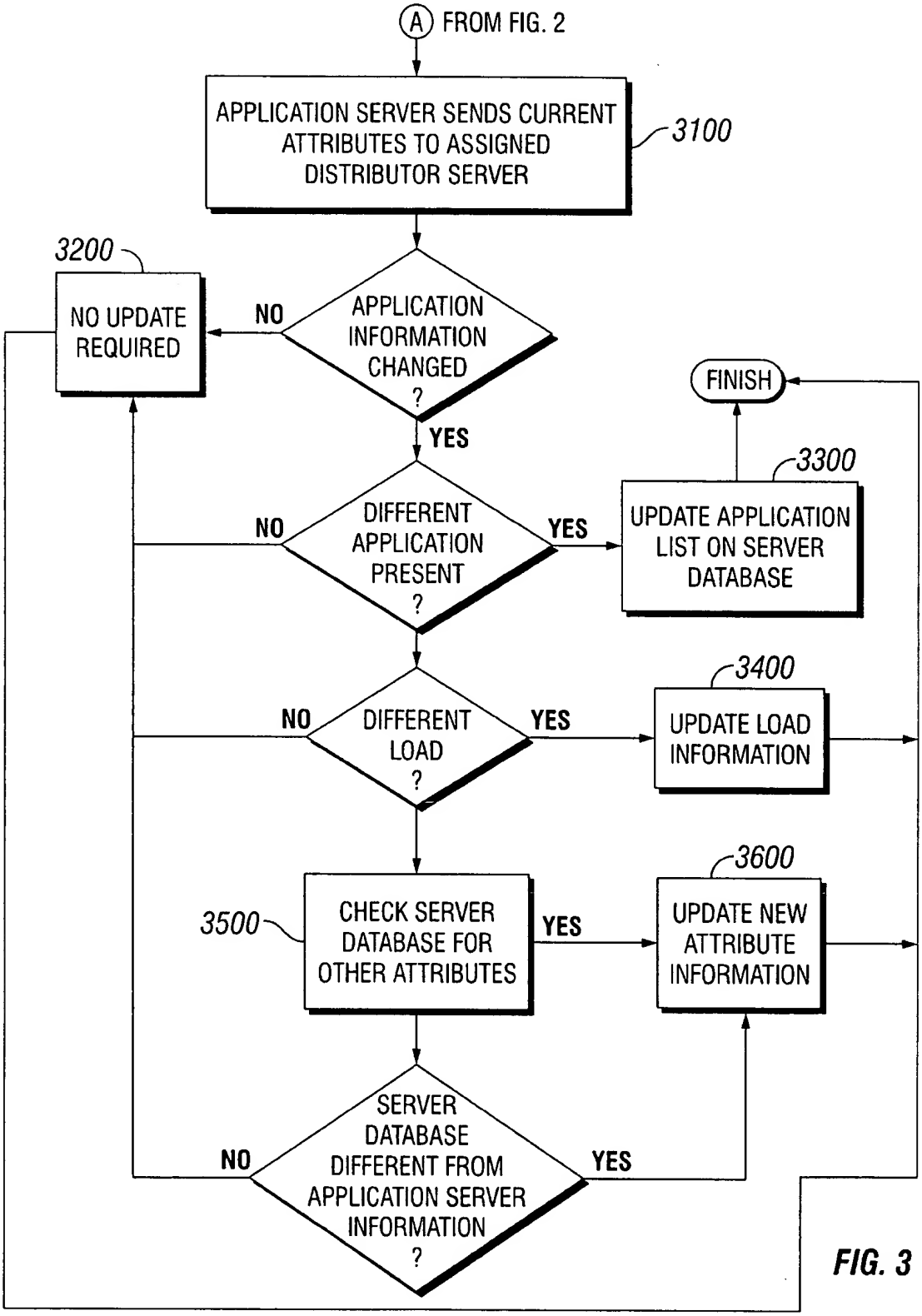
A FROM FIG. 2
APPLICATION SERVER SENDS CURRENT ATTRIBUTES TO ASSIGNED DISTRIBUTOR SERVER
3100
APPLICATION INFORMATION CHANGED ?
NO
3200
NO UPDATE REQUIRED
YES
DIFFERENT APPLICATION PRESENT ?
NO
YES
UPDATE APPLICATION LIST ON SERVER DATABASE
3300
FINISH
DIFFERENT LOAD ?
NO
YES
UPDATE LOAD INFORMATION
3400
CHECK SERVER DATABASE FOR OTHER ATTRIBUTES
3500
YES
UPDATE NEW ATTRIBUTE INFORMATION
3600
SERVER DATABASE DIFFERENT FROM APPLICATION SERVER INFORMATION ?
NO
YES

FIG. 3

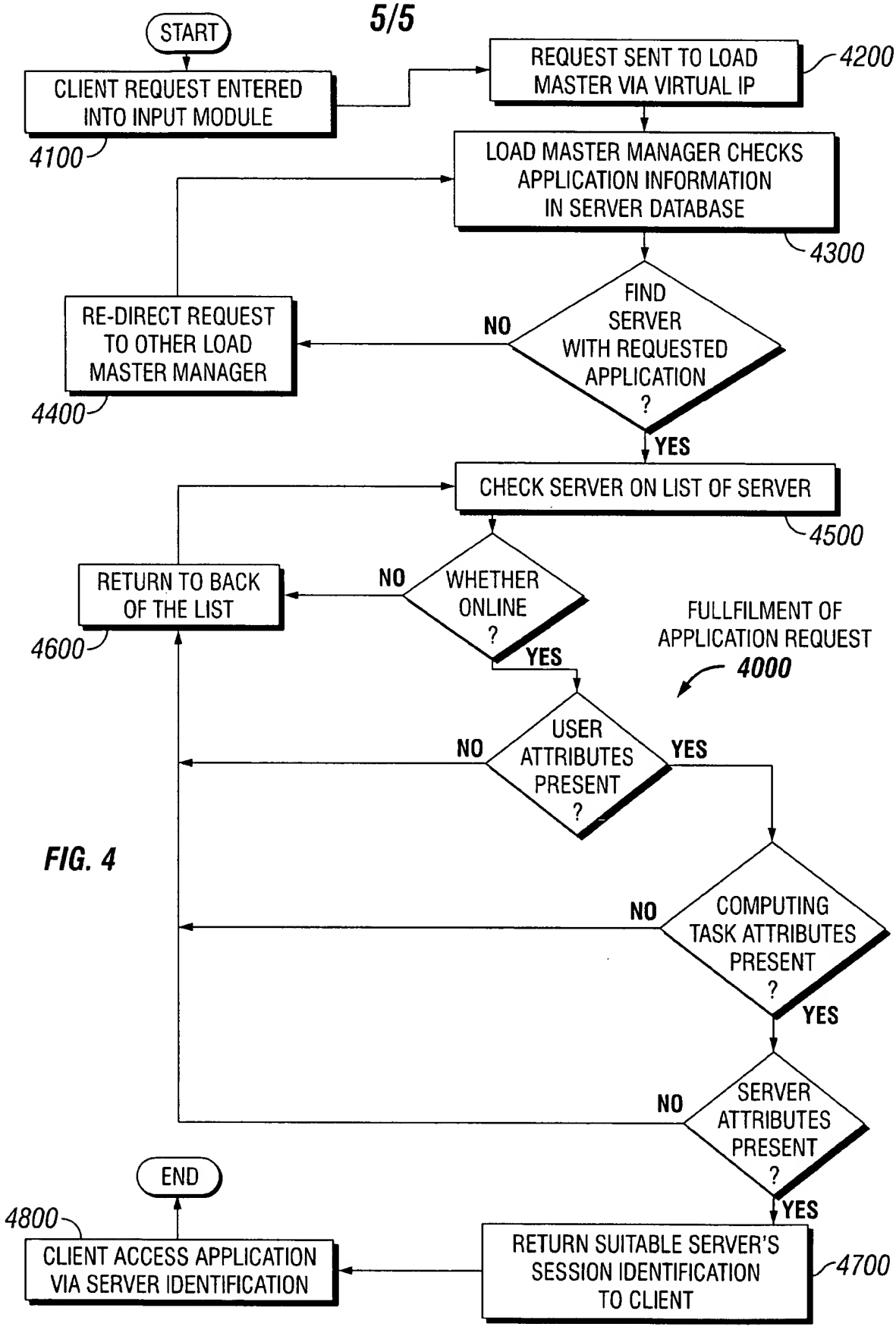
START
CLIENT REQUEST ENTERED INTO INPUT MODULE
4100
REQUEST SENT TO LOAD MASTER VIA VIRTUAL IP
4200
LOAD MASTER MANAGER CHECKS APPLICATION INFORMATION IN SERVER DATABASE
4300
FIND SERVER WITH REQUESTED APPLICATION ?
NO
RE-DIRECT REQUEST TO OTHER LOAD MASTER MANAGER
4400
YES
CHECK SERVER ON LIST OF SERVER
4500
WHETHER ONLINE ?
NO
RETURN TO BACK OF THE LIST
4600
YES
FULLFILMENT OF APPLICATION REQUEST
4000
USER ATTRIBUTES PRESENT ?
NO
YES
COMPUTING TASK ATTRIBUTES PRESENT ?
NO
YES
SERVER ATTRIBUTES PRESENT ?
NO
YES
RETURN SUITABLE SERVER'S SESSION IDENTIFICATION TO CLIENT
4700
CLIENT ACCESS APPLICATION VIA SERVER IDENTIFICATION
4800
END

FIG. 4